

4th March 1981

Dear Arthur,

Thank you for sending me the revised version of your paper. The new footnote 4 clarifies my misunderstandings about the significance of the $\langle x, 1 \rangle$ level of description.

With regard to locality and the Corollary rule, I would make two comments on points raised in your letter:

1) When I suggested $[I \otimes B]_{f(A)}^4 \neq [I \otimes B]_A^4$

I had in mind two incompatible measurements on the A-system.

E.g. with A maximal and $f(A)$ degenerate measure $f(A)$ by writing $f(A) = g(c)$ where $[A, c] \neq 0$, and then measure c and
P.T.U.

apply g to the result.

$$\text{So } [f(A)]_{\text{df}} = g([c])$$

and g now blocks the derivation of

$$g([c]) = f([A])$$

a relationship between the incompatible magnitudes A and c , which is what we require to derive a Tarski-Speiser paradox in the A -system.

- 2.) I agree unrestricted use of the 'extended spectrum rule' leads to Fenc. and hence to inconsistency, but in your 1974 paper you did allow this rule to hold for genuinely comensurable observables, which presumably would include measurements on two separated systems such as we are dealing with in the Correlation rule.

With best wishes

Yours
Richard